



# Lake Erie Harmful Algal Bloom Bulletin

18 September, 2017, Bulletin 20

The *Microcystis* cyanobacteria bloom continues in the western basin, along the Michigan and Ohio coasts, extending around the islands and east to the central basin. Observed winds since Thursday (9/14-18) caused an increase in surface concentrations, and allowed for the formation of scum. Scums were visible northwest of the Bass Islands. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but concentrations can exceed the threshold east of Maumee Bay State Park and northwest of the Bass Islands where the bloom is most dense (appearing green from a boat).

Forecast winds (5-11kn) today through Thursday (9/18-9/21) may reduce the potential for scum formation and minimize transport of remaining *Microcystis* concentrations. The water temperature is approaching or below 68°F (20°C) throughout the western basin, limiting the growth of *Microcystis* concentrations.

Please check Ohio EPA's site on harmful algal blooms for safety information: <http://epa.ohio.gov/habalgae.aspx>. Keep your pets and yourself out of the water in areas where scum is forming. NOAA's GLERL provides additional HAB data: [https://www.glerl.noaa.gov/res/HABs\\_and\\_Hypoxia](https://www.glerl.noaa.gov/res/HABs_and_Hypoxia). The persistent cyanobacteria bloom in Sandusky Bay continues. Cyanobacteria is visible in the central basin extending offshore Headlands Beach State Park to Presque Isle State Park. --Ludema, Davis

The images below are "GeoPDF". To see the longitude and latitude under your cursor, select "Tools > Analyze > Geospatial Location Tool".

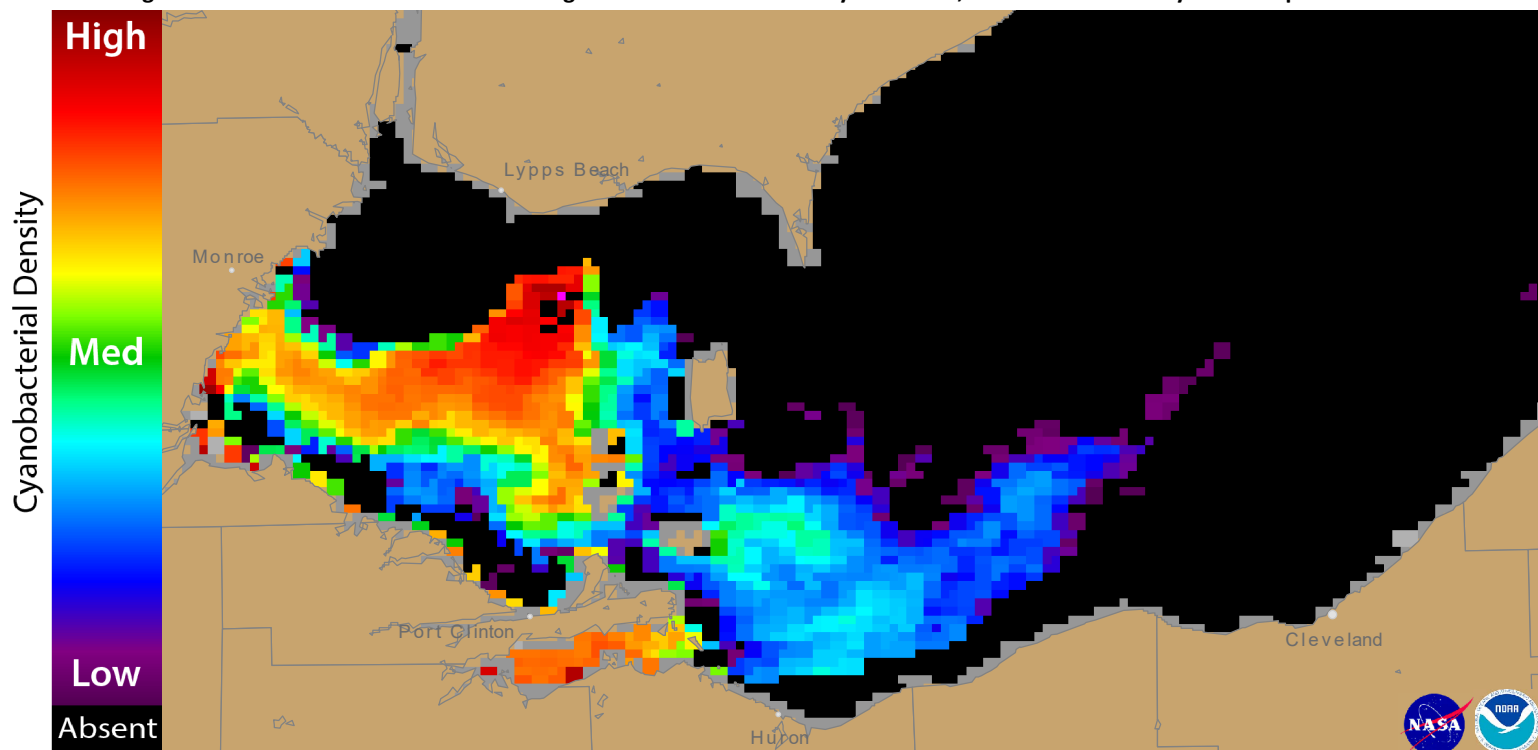


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua data collected 17 September, 2017 at 13:31 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

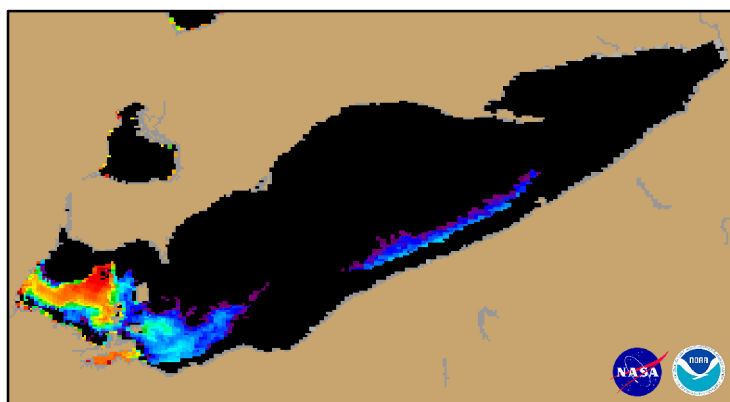
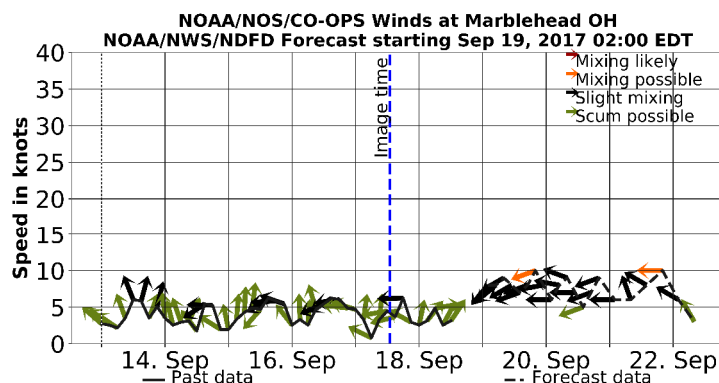


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua data collected 17 September, 2017 at 13:31.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

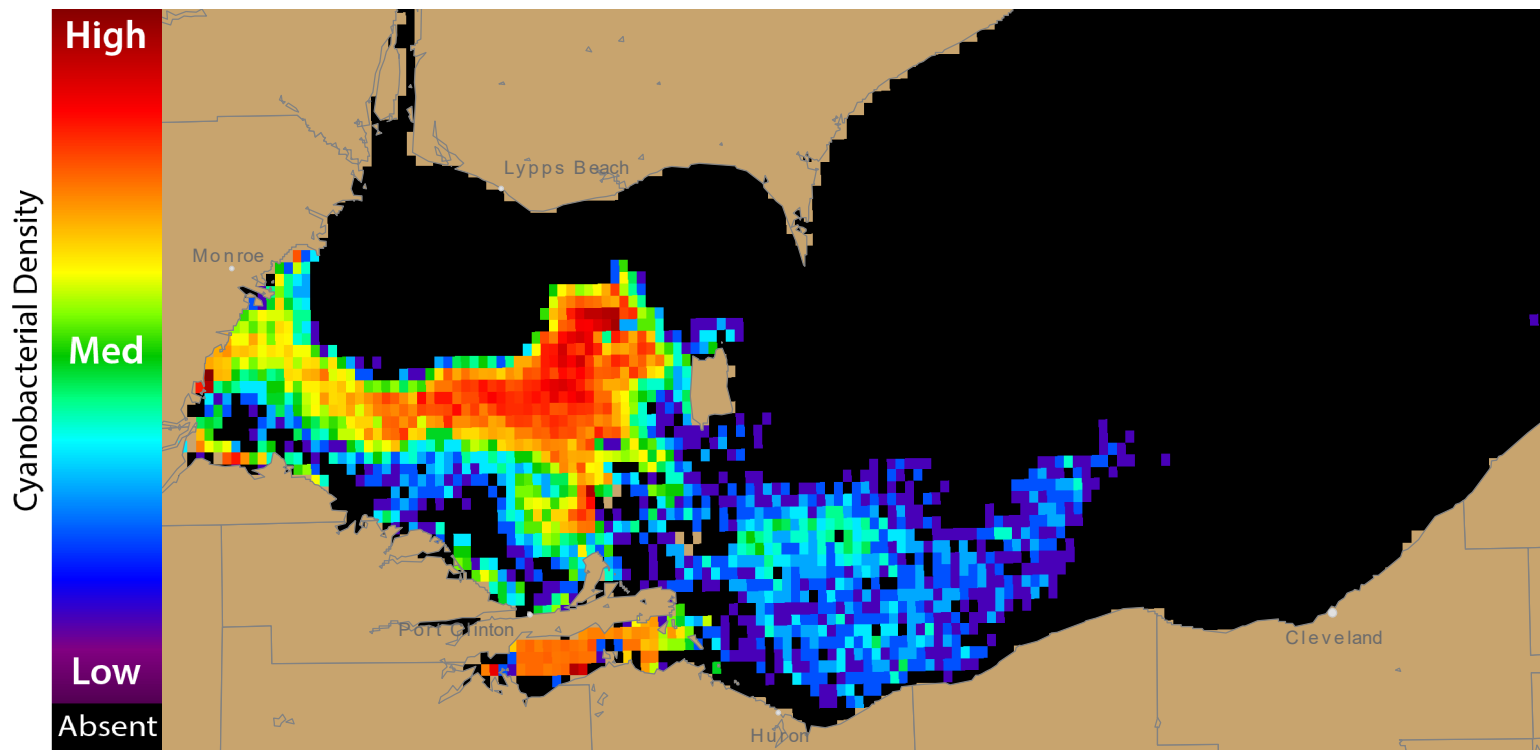


Figure 3. Nowcast position of bloom for 18 September, 2017 using GLFS modelled currents to move the bloom from the 17 September, 2017

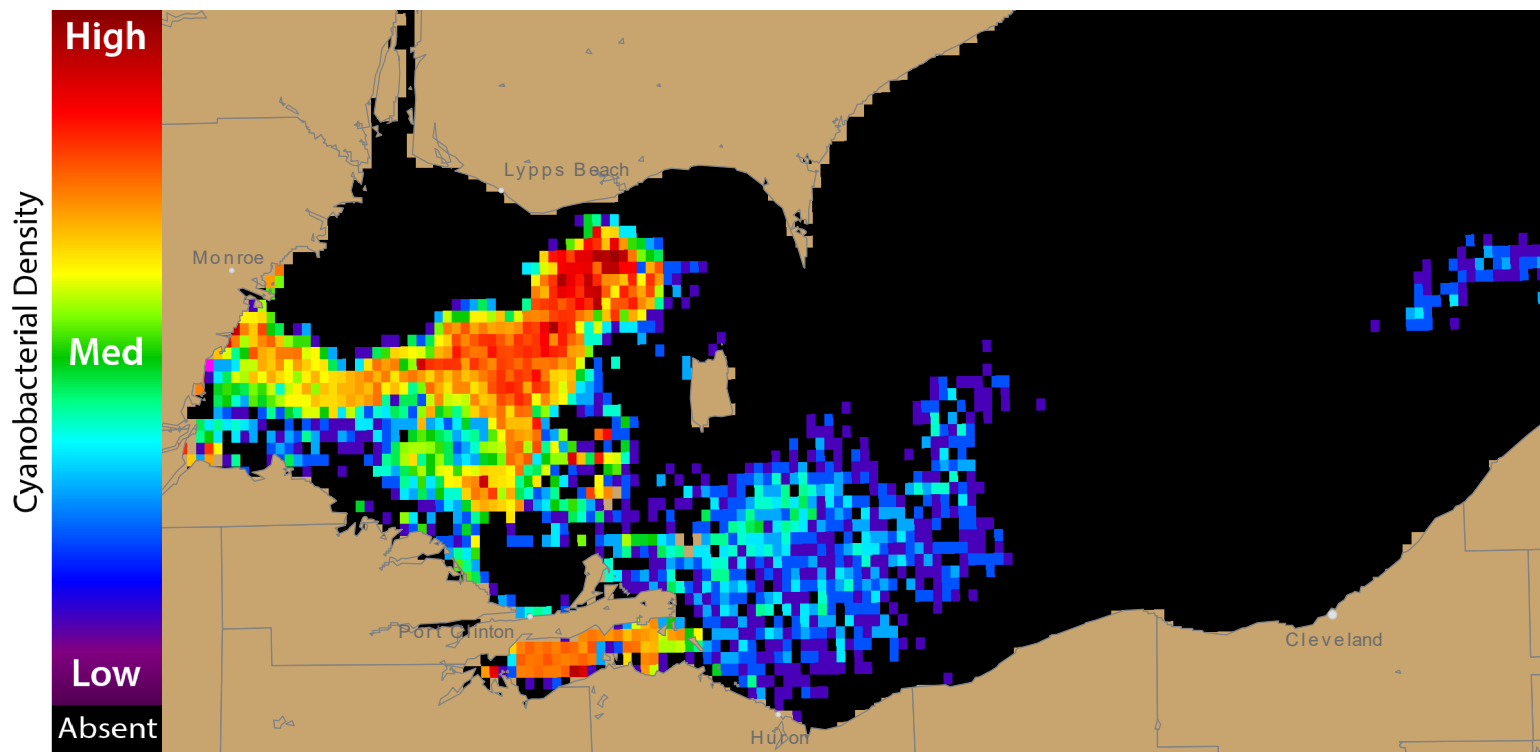
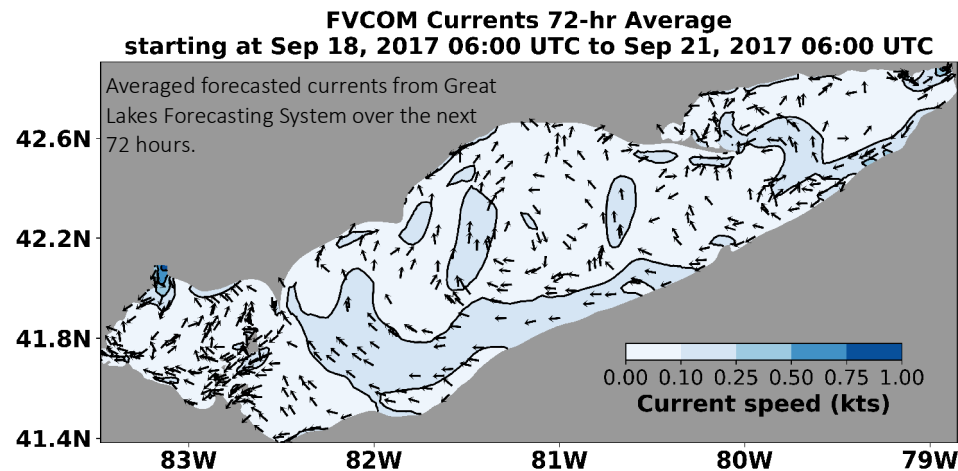


Figure 4. Forecast position of bloom for 21 September, 2017 using GLFS modelled currents to move the bloom from the 17 September, 2017



For more information and to subscribe, please visit the NOAA HAB Forecast page:  
<https://tidesandcurrents.noaa.gov/hab/lakeerie.html>